

PTO 04-3220 HAMT

Japanese Patent
Document No. 11-169596

DRYING CLIP
[物干しクリップ]

Kaneko Hiroshi

UNITED STATES PATENT AND TRADEMARK OFFICE
Washington, D.C. 05/2004

Translated by: Schreiber Translations, Inc.

Bibliographic Fields

Document Identity

(19) [Publication Office]

Japan Patent Office (JP)

(12) [Kind of Document]

Unexamined Patent Publication (A)

(11) [Publication Number of Unexamined Application]

Japan Unexamined Patent Publication H11-169596

(43) [Publication Date of Unexamined Application]

29 June 1999 (H11)

(43) [Publication Date of Unexamined Application]

29 June 1999 (H11)

(54) [Title of Invention]

DRYING CLIP

(51) [International Patent Classification, 6th Edition]

D06F 55/00

[FI]

D06F 55/00 C

[Number of Claims]

1

[Form of Application]

Hard-copy application

[Number of Pages in Document]

5

[Request for Examination]

Not Requested

(21) [Application Number]

Japan Patent Application H9-369846

(22) [Application Date]

12 December 1997 (H.9)

(71) [Applicant]

[Identification Number]

591165425

[Name]

YAMASA AGRICULTURAL PRODUCTS, LTD

[Address]

240 Oaza Osugi, Akadomari-mura, Sado-gun, Nigata

(72) [Inventor]

[Name]

KANEKO HIROSHI

[Address]

240 Oaza Osugi, Akadomari-mura, Sado-gun, Nigata

(57) [Abstract]

(Amended)

[Means to Solve the Problems]

This invention relates to a clip having handle sections, claws, a fulcrum, and a spring, and the clip further comprises holes 5 and 6 to put a rope therein, or a rope holding opening. The clip is made from resin or other material and molded as one piece.

[Effect(s)]

The clip of this invention will not cause rust, which stains laundry, and can be manufactured at lower unit price.

In addition, once clips are attached to a rope, they can be used for many years until the rope breaks, and persimmons can be hanged simply by pinching their stems with the clips.

[Claim(s)]

[Claim 1]

A drying clip comprising a handle section, fulcrum, claws and spring, which is featured by further comprising: holes (5) and (6) for putting a rope therein; or rope holding openings (7) (8), wherein said clip is made from a resin or other material, and molded as one piece.

[Description of the Invention]

[0001]

[Technological Field of Invention]

This invention relates to a clip for hanging laundry, agricultural or marine products, or the like.

[0002]

[Prior Art]

Conventionally, laundry has been hanged using a metallic clip, and this clip has two arms comprised of a resin handle section and a claw, and a metal spring to put those arms together.

Since only a few special clips for hanging agricultural or marine products are available, if a special clip for the intended products is not available, substitutions are used. Especially, for making dried persimmons, a harvesting method and a drying method may be different depending on the region, but in the region specialized in making dried persimmons, persimmons are harvested with the fruit stem (14) or even with the fruiting branch.

In the region, the fruit stems (14) are bound with a thin rope, or if it is harvested with the fruiting branch, the twist of the rope is slightly untwisted and then the fruiting branches are twisted in the rope for hanging.

[0003]

[Problems to be Solved by the Invention]

Since the spring of a conventional clip is made of metal, it can rust and be broken, and therefore laundry can be stained with the rust. In addition, since several items have to be made separately to compose one conventional clip, it costs more to manufacture, and requires additional labor to put those items together. For these reasons, the unit price of this conventional clip is high.

Also, a very few special clips for drying agricultural or marine products are available, probably because of small market size, they have to be substituted by other means.

Moreover, in the manufacturing of dried persimmons, the drying method is different depending on the harvesting method.

In the region specialized in manufacturing dried persimmons, persimmons are harvested with the stems or even with the fruiting branches.

The method of hanging persimmons in this region includes detailed troublesome tasks, such as binding small persimmon stems together with a thin rope, or slightly untwisting a rope and then twisting the fruiting branches in the rope if the persimmons are harvested with fruiting branches.

Since persimmons are shipped after cutting them at the root of the fruit stems (14), the fruit stems (14) are left with the thin rope. This thin rope with fruit stems are discarded or will be reused by loosening knots during winter, which wastes materials, or requires additional labor.

In addition, in the method of harvesting persimmons with the fruiting branches, it requires troublesome work such as slightly untwisting a rope and then twisting the fruiting branches in the rope.

In this method, since fruiting branches that would have a fruit in the next year are harvested, it is difficult to maintain the tree shape, and biennial harvesting is forced.

In view of the above problems, the objective of the invention is to solve the above drawbacks.

[0004]

[Means to Solve the Problems]

The clip of this invention is comprised of handle sections, claws, a fulcrum and a spring, and has holes (5) and (6) for putting a rope therein, or rope holding openings (7) and (8), which are provided on arms (2), a fulcrum spring (3), a spring (18), or other part of the clip. The feature of this clip is also that it is made from a resin or other material and molded as a one piece.

The present invention is the clip described above.

[0005]

[Embodiment of the Invention]

Working Examples of this invention is described below.

The clip of this invention is a drying clip and comprised of handle sections, claws, a spring, and a fulcrum. This clip has holes (5) and (6) for putting a rope therein, or rope holding openings (7) or (8) for putting the clips, which holds items to be dried at a part of the clip, such as arms (2), fulcrum spring (3), or spring (18) to a drying rope.

The present invention is as described above.

The method employed here is the one for drying persimmons.

A predetermined number of clips (Fig. 1) are put on a rope (12) by putting the rope through the holes A(5) provided on both sides of each clip, so as to arrange the clips at appropriate intervals.

For putting the clips through the rope (12), the rope is first put through the larger hole part of the hole (5), and then placed in the smaller hole part of the hole (5).

By doing this, the rope is securely gripped by the hole. Here, a simple circular hole can be also satisfactorily used in place of the hole (5).

Once the clips are attached to the rope, force is applied inward onto both handle sections of each clip, and then the claws are opened.

While the claws are opened, the fruit stem (14) of a persimmon fruit is placed between the claws and then pinched by them.

Similarly, other stems are pinched by the rest of the claws.

If one end of the rope (12) is pulled up after finishing pinching persimmons, it looks as shown in Fig. 8.

Similarly, clips are attached to a rope by putting a rope (12) in the rope holding opening A(7) of Fig. 4 or in the rope holding opening (8), and then persimmons (13) are pinched with those clips.

If both ends are lifted after finishing pinching persimmons, it looks as shown in Fig. 10.

In this case, as shown in Fig. 5, the rope holding opening B(8) can be provided either inner or outer side of the arms.

In these methods, since a rope (12) having an appropriate thickness is put in the holes (5) for putting a rope or rope holding openings (7) and (8), the clips can freely move along the rope (12) when weight, such as a persimmon (13), is not applied to the claws (4), but the clips cannot move along the rope (12) when weight such as a persimmon (13) is applied to the claws (4). This is because the rope (12) is bent by the holes (5) for putting a rope once the weight is

applied to the claws, as shown in Fig. 8.

Also, as shown in Fig. 6, a plurality of clips can be connected with a connecting part (9) so that they can be molded as one piece.

In this case, the stems (14) of persimmons are pinched by the clips provided at the ends of the connecting part (9), and then hanged in the same way as in Fig. 9.

Also, as shown in Fig. 7, a clip, a ring (10) and a hanging string (11) can be molded as one piece, and then attached to a rod or other means by hooking the ring onto a nail or other means that is anchored onto the rod or other means.

As shown in Fig. 11, the ring section (10) can be sphere (17), and the clip can be used by attaching the sphere section into a recess provided on a rod or the like.

In addition, if a rope (12) is put through the holes B(6) for putting a rope of the clip shown in Fig. 1, and the rope is knotted under the fulcrum spring, it looks as shown in Fig. 9.

As shown in Fig. 12, those clips can be bent outward from the middle portion of the arm (2) so as to have the claws (4) opened widely.

Also, a spring (18) can be provided for fortifying the fulcrum spring so as to connect between the both arms (2).

Moreover, as shown in Fig. 1, it is also possible to have a reinforcing section on a part of the arm (2) in order to reinforce the arm (2).

In any of the Working Examples shown in Figs. 1, 4 and 5, persimmons can be hanged either horizontally or vertically.

Here, the shape of the claws (4) can be various. For example, it can be serrated, or triple-edged.

[0006]

[Effects of the Invention]

Since the clip of this invention is made as one-piece article by injection molding of resin or other material without using metal, it will not rust and not stain laundry, and can be manufactured at lower unit price.

In addition, once clips are attached to a rope (12), they can be used for many years until the rope breaks, and persimmons can be dried by simply pinching the fruit stems (14) with the clips. Therefore, it is very simple and efficient, and persimmons can be securely held by the clips without dropping.

Also, the present invention does not require to slightly untwist a thin rope, and does not waste materials.

Since the clips of this invention require only stem (14) to pinch, persimmons do not have to be harvested with the fruiting branches. Accordingly, the tree shape can be freely controlled by pruning, and biennial fruiting can be prevented to some degree.

[Brief Explanation of the Drawing(s)]

[Fig. 1]

Perspective view of this invention.

[Fig. 2]

Front view of this invention.

[Fig. 3]

Side view of this invention.

[Fig. 4]

Side view of another Working Example of this invention.

[Fig. 5]

Side view of another Working Example of this invention.

[Fig. 6]

Side view of other Working Example of this invention.

[Fig. 7]

Side view of other Working Example of this invention.

[Fig. 8]

Explanatory side view illustrating how to use this invention.

[Fig. 9]

Explanatory side view illustrating how to use another Working Example of this invention.

[Fig. 10]

Explanatory side view illustrating how to use another Working Example of this invention.

[Fig. 11]

Explanatory side view illustrating how to use another Working Example of this invention.

[Fig. 12]

Side view of another Working Example of this invention.

[Explanation of Symbols in Drawings]

1

Handle section

10

Ring

11

Hanging string

12

Rope

13

Persimmon

14

Fruit stem of a persimmon

15

Pole

16

Recess

17

Sphere

18

Spring

19

Reinforcing section

2

Arm

3

Fulcrum spring

4

Claw

5

Hole A for putting a rope

6

Hole B for putting a rope

7

Rope holding opening A

8

Rope holding opening B

9

connecting part

Drawings

[Fig. 1]

- 1: Handle
- 2: Arm
- 3: Fulcrum spring
- 4: Claw
- 5: Hole A for putting a rope
- 6: Hole B for putting a rope
- 19: Reinforcing section

[Fig. 2]

[Fig. 4]

- 7: Rope holding opening A

[Fig. 6]

- 9: Connecting part

[Fig. 3]

[Fig. 5]

- 8: Rope holding opening B

[Fig. 7]

- 10: Ring
- 11: Hanging string

[Fig. 8]

- 12: Rope
Clip
- 13: Persimmon
- 14: Fruit stem of a persimmon

[Fig. 9]

- 15: Rod
Rope knot (on the left)
Clip (on the right)

[Fig. 10]

- 8: Rope holding opening

[Fig. 12]

- 18: Spring

[Fig. 11]

- 17: Sphere
- 16: Recess